STATEMENT OF QUALIFICATIONS
Materials Testing & Inspection Services

Western University of Health Sciences

State Route 22

Big Tujunga Dam

Irvine • Torrance • Ontario • Sacramento
San Diego • Victorville

www.groupdelta.com
Group Delta Consultants, Inc. (Group Delta) is a consulting engineering firm with six offices and certified laboratories in Irvine, Torrance, Ontario, Victorville, San Diego and Sacramento. The firm has highly skilled professionals consisting of civil and geotechnical engineers, engineering geologists, laboratory and field technicians, deputy inspectors, drafting/CADD, and drilling and support personnel specialized in their respective fields. We offer a broad range of services to serve the needs of our clients. Our capabilities and services include geotechnical feasibility study, geotechnical field investigation, in-situ testing, foundation design, construction monitoring and materials testing, ground improvement and design, slope stability investigation and analyses, preparation of plans and specifications, coastal engineering, instrumentation, seismic studies and earthquake engineering.

We have established a record of completing projects on schedule and within budget for major clients in the public and private sectors since 1986. Our laboratories are licensed as an approved testing facility by various agencies including AASHTO and Caltrans. The involvement of our principals and senior managers in each project and particularly our focus on developing innovative design solutions to reduce overall construction cost has resulted in repeat business. The evidence of our work indicating the unique benefits of our approach and methodologies are provided in various awards and recommendations from well-known organizations in the public and private sectors.

**Corporate Summary**

Firm’s Name: Group Delta Consultants, Inc.  
Firm Type: California Corporation  
Year Established: 1986
Services
Group Delta Consultants has in-house geotechnical and materials testing laboratory facilities to conduct a variety of testing on soils and other building materials. Our laboratories are equipped with state-of-the-art equipment to perform tests in accordance with the American Society of Testing and Materials (ASTM) and other applicable standards and our laboratories are certified by Caltrans and the City of Los Angeles. Our service capabilities in geotechnical and materials laboratory testing include the following:

**Materials Testing & Special Inspection**

- Asphalitic Concrete (AC)
- Concrete
- Epoxy
- Masonry
- Structural Steel
- Reinforcing Steel
- Welding
- Fireproofing
- Batch Plant
- FRP

**Asphalt Concrete Testing**

- Stripping test
- Ash Content
- Asphalt Concrete density tests (nuclear)
- Density of asphalt cores
- Index of retained strength
- Hveem mix design and laboratory testing
- Marshall density
- Theoretical maximum specific gravity (Rice)
- Stability and Flow
- Moisture content
- Stabilometer value
- Swell
- Moisture-Vapor susceptibility
- Extraction (Ignition oven, vacuum, reflux, hot solvent)
- Extracted sample sieve analysis
Construction Inspection and Materials Testing Services

Group Delta Consultants offers a full range of construction phase inspection and materials testing services. Our services during the construction phase are directed towards strict compliance of regulatory guidelines. Adherence to specifications is monitored and documented by registered geotechnical engineers, licensed inspectors and certified laboratories. Our service capabilities in construction monitoring and materials testing areas include:

Materials Testing
- Asphalt Concrete
- Cement Treatment of Subgrades/Subbases
- Structural Steel Welding
- Concrete & Masonry
- Beams
- Blocks
- Cubes
- Cylinders
- Grout/Mortar
- Prisms
- Vapor Emissions Testing
Geotechnical Services

Geotechnical Engineering – Our services include:

- Feasibility Study
- Field Investigation
- Laboratory Testing
- Shallow Foundation Design
- Pile Foundation Design
- Settlement Analyses
- Ground Improvement & Design
- Slope Stability Investigation & Analyses
- Preparation of Plans & Specifications
- Earthwork & Grading Specifications
- Pavement Design
- Pile Drivability & Load Tests
- Instrumentation & Monitoring
- Forensic Engineering

Geologic and Seismic Hazard Evaluation - Our services include:

- Geologic Mapping
- Landslide Studies & Mitigation
- Groundwater Investigations
- Fault Hazard Investigations
- Geophysical Investigations
- Deterministic/Probabilistic Ground Motion Analyses
- Liquefaction & Lateral Spreading Analyses

Earthquake Engineering - Our services include:

- Liquefaction & Lateral Spreading Analyses
- Seismic Earth Pressure
- Seismic Deformation Analysis
- Seismically Induced Settlement
- Liquefaction Mitigation Measures
- Design Recommendations for New and Retrofit Projects
- Seismic Design Criteria
- Earthquake Response Spectra
Project Experience
Materials Testing & Inspection
State Route 22 Design-Build Project
Orange County

Client:
Parsons Transportation/OCTA/Caltrans

Project Components

- Widening of the freeway and construction of HOV lanes
- Developed 33 Post Advanced Planning Study Geotechnical Data Reports for 33 bridges
- Coordination with multiple agencies, traffic control, night work, restrictive work hours and working on an operating freeway with narrow shoulders.

Group Delta Consultants provided materials testing, inspection and geotechnical engineering with responsibilities that also included review of the design build contractor’s submittals, and QA/QC testing during the construction. All work was performed under a formal QA/QC program in accordance with the ISO 9000 and was audited by Parsons Transportation, the team leader.

2006 ASCE Project of the Year
State Route 91 Design-Build Project
Riverside County

Group Delta Consultants is provided laboratory testing on samples recovered from the borings and developing Post Advanced Planning Study Geotechnical Data Reports for bridges along the alignment. All work was performed under a formal QA/QC program in accordance with the ISO 9000 and was be audited by Parsons Transportation Group, the team leader.

Project Components

- Focused on 14-miles of congestion that runs from the SR-241 Toll Road in Yorba Linda to Pierce Street in Riverside

Client:
Parsons Transportation
Project elements include the following:

- Field materials testing of projects throughout Los Angeles and Ventura Counties.
- Batch plant inspection throughout Los Angeles and Ventura Counties.
- Major Projects Include:
  - Interstate 405
  - State Route 23
  - State Route 60
  - Interstate 710
  - State Route 91
  - State Route 101
  - Interstate 10
  - State Route 110
  - Interstate 5
  - U.S. Route 1

Group Delta Consultants provided on-call inspection and materials testing for Caltrans District 7. Responsibilities included the observation and testing of fill compaction, concrete pavement, asphalt pavement, concrete for content, Kelly Ball, concrete unit weight, batch plant inspections for aggregate compliance and rapid set concrete. Performed all field and laboratory testing in compliance with Caltrans specifications. This project included night work, weekend work, and reporting on short notice to the project site. GDC inspectors were responsible for all data reports.
Group Delta Consultants provided on-site quality control materials testing during roadway improvements on Beach Boulevard and Whittier Boulevard in the city of La Habra. Our services included sampling and testing of Rapid Set Concrete in conformance with CALTRANS test methods and inspection and testing of asphalt concrete paving operations.
San Diego City College
Mathematics and Social Sciences Building
San Diego

Client:
San Diego Community College District

Geotechnical Engineering
Geology
Earthquake Engineering
Materials Testing and Inspection
Forensic Services

Project Components

- 5-story, 73,000 square foot, general purpose building containing classrooms, a health center, a corporate education center
- Associated support space along with a 7 tier, 400-car, parking garage

Group Delta Consultants is providing special inspection and testing services for all of the reinforcing steel (including headed rebar), reinforced concrete, post-tensioned concrete, structural steel, high-strength bolts, shop and field welding, masonry, anchors, and fire proofing.

Group Delta Consultants also provided geotechnical parameters for foundation design including 149 caissons ranging from 2 feet to 6 feet in diameter and up to 90 feet in length.
Group Delta Consultants has been selected to provide materials testing and construction inspection support services for LAUSD’s first design-build project – the $28 million Dorsey High School Redevelopment. The major components of the project include a new Ninth Grade Academy Classroom Building, a new Competition Gymnasium, and renovation and refitting of the original Gymnasium Building.
Group Delta Consultants performed a geotechnical investigation for the owner for construction of the new 5-story 185,000 square foot medical school addition building on a 2 acre lot.

Project Components

- Materials laboratory testing and field inspection of: Fireproofing, foundation-slab-structural concrete, shotcrete, concrete bolts, CMU walls, Reinforcing steel, Structural Steel, Field and Shop welding, High Strength Bolting, Shop and Field Non-Destructive Testing, Drilled In Anchors and Dowels, Compression and Tensile testing of concrete and steel materials.

- Geotechnical observation of shoring installation, foundation over excavation, subgrade preparation, utility trench excavation and backfill, and pavement base preparation.

- Field density testing of compacted base and fill soils and asphalt.

Client:
Western University of Health Sciences
Robert F. Kennedy Learning Center
Los Angeles

Client:
Los Angeles Unified School District

Project Components

- Largest LAUSD project at $578 Million
- Former Ambassador Hotel
- Three campuses – K-12, Middle School and High School
- Incorporated portion of former Cocoanut Grove Night Club

Group Delta Consultants was the geotechnical engineer and geologist of record for the Robert F. Kennedy Community Schools complex designed and built for the Los Angeles Unified School District. In addition to the geotechnical services, Group Delta Consultants also conducted an extensive materials investigation and testing program of the structural members, material strength and connections for use in the structural assessment of the original Cocoanut Grove nightclub.
San Vicente Dam Raise
San Diego County

Group Delta Consultants is providing materials testing and inspection services to the contractor, Shimmick/Obayashi - a joint venture, that will raise the dam using roller-compacted concrete (RCC). The RCC will extend from the base of the dam’s downstream side to its ultimate height of 337 feet. Group Delta Consultants will be providing laboratory and field testing services for the on-site crushing operation for 1.1 million tons of mass aggregate, testing of 650,000 cubic yards of roller compacted concrete, and testing of the earthwork associated with the dam raise.

Project Components

- $145 million dam raise project
- Height will increase by 117 feet making it the tallest dam in the U.S.
- Requires crews working 7 days per week, 24 hours per day
Big Tujunga Dam Seismic Retrofit
Los Angeles

Client:
Shimmick Construction

Project Components

- Seismic Retrofit
- As-Built materials analysis
- Night work
- Full-time on-site lab
- DOSD reviewed

To date, the Tujunga Dam project is the largest infrastructure project in Los Angeles County history. Group Delta Consultants provided on site materials evaluation and testing during construction of the retrofit. GDC established a full-time, on-site laboratory for on-site testing of all construction materials including coring of the existing 1930 concrete for final materials evaluation. The project schedule requires that all concrete placements be performed at night to limit the thermal expansion of the 80,000 cubic yards of new concrete.
Terranea Resort
Rancho Palos Verdes

Client:
City of Rancho Palos Verdes

Project Components
- 102 acre project includes 400,000 sq ft hotel, 50 casitas, 32 villas, and 20 bungalow units
- 25,000 sq. ft spa, 3 swimming pools, 9 hole ocean front golf course

Group Delta Consultants provided the Inspector of Record for this $480 million resort project located in Rancho Palos Verdes. Our Inspector performed daily building inspections for the electrical, plumbing, fire sprinklers and HVAC systems as well as overseeing all special inspections and materials sampling including masonry, concrete, reinforcing steel, welding, structural steel, fireproofing and soils. The 23 month project, developed by Lowe Enterprises and built by Turner Construction Company on the Palos Verdes Peninsula, is the largest construction project of its type in the history of the city.